

Section 21. General Requirements

210. Referenced Sections

The Introduction (Section 1), Definitions (Section 2), References (Section 3), and Grounding Methods (Section 9) shall apply to the requirements of Part 2.

211. Number 211 not used in this edition.

212. Induced Voltages

Rules covering supply-line influence and communication-line susceptiveness have not been detailed in this code. Cooperative procedures are recommended in the control of voltages induced from proximate facilities. Therefore, reasonable advance notice should be given to owners or operators of other proximate facilities that may be adversely affected by new construction or changes in existing facilities.

213. Accessibility

All parts that must be examined or adjusted during operation shall be arranged so as to be accessible to authorized persons by the provision of adequate climbing spaces, working spaces, working facilities, and clearances between conductors.

214. Inspection and Tests of Lines and Equipment

A. When In Service

1. Initial Compliance With Rules

Lines and equipment shall comply with these safety rules when placed in service.

2. Inspection

Lines and equipment shall be inspected at such intervals as experience has shown to be necessary.

NOTE: It is recognized that inspections may be performed in a separate operation or while performing other duties, as desired.

3. Tests

When considered necessary, lines and equipment shall be subjected to practical tests to determine required maintenance.

4. Record of Defects

Any defects affecting compliance with this code revealed by inspection or tests, if not promptly corrected, shall be recorded; such records shall be maintained until the defects are corrected.

5. Remedying Defects

Lines and equipment with recorded defects that could reasonably be expected to endanger life or property shall be promptly repaired, disconnected, or isolated.

B. When Out of Service

1. Lines Infrequently Used

Lines and equipment infrequently used shall be inspected or tested as necessary before being placed into service.

2. Lines Temporarily Out of Service

Lines and equipment temporarily out of service shall be maintained in a safe condition.

3. Lines Permanently Abandoned

Lines and equipment permanently abandoned shall be removed or maintained in a safe condition.

Section 43. Additional Rules for Communications Employees

430. General

Communications employees shall observe the following rules in addition to the rules contained in Section 42.

431. Approach to Energized Conductors or Parts

A. No employee shall approach, or bring any conductive object, within the distances to any exposed energized part as listed in Table 431-1. When repairing storm damage to communication lines that are joint use with electric supply lines at that or another point, employees shall:

1. Treat all such supply and communication lines as energized to the highest voltage to which they are exposed, or
2. Assure that the supply lines involved are de-energized and grounded in accordance with Section 44.

B. Altitude Correction

The distances in Tables 431-1 shall be used at elevations below 900 m (3000 ft). Altitude correction factors as indicated in Table 441-5 shall be applied above that altitude. Altitude correction factors shall be applied only to the electrical component of the minimum approach distance.

432. Joint-Use Structures

When working on jointly used poles or structures, employees shall not approach closer than distances specified in Table 431-1 and shall not position themselves above the level of the lowest electric supply conductor exclusive of vertical runs and street lighting.

EXCEPTION: This rule does not apply where communications facilities are attached above electric supply conductors if a rigid fixed barrier has been installed between the supply and communications facilities.

433. Attendant on Surface at Joint-Use Manhole

While personnel are in a joint-use manhole, an employee shall be available on the surface in the immediate vicinity to render assistance as may be required.

434. Sheath Continuity

Metallic or semiconductive sheath continuity shall be maintained by bonding across the opening, or by equivalent means, when working on buried cable or on cable in manholes.

Table 431-1
Overhead Supply Lines and Equipment Minimum Approach Distances to Exposed Energized Parts
 (See Rule 431 in its entirety)

Voltage range (phase-to-phase, rms) ¹	Distance to Employee	
	Phase-to-ground (m)	Phase-to-ground (ft-in)
0 V to 50 V ²	not specified	not specified
51 V to 300 V ²	avoid contact	avoid contact
301 V to 750 V ²	0.31	1-0
751 V to 15 kV	0.65	2-2
15.1 kV to 36.0 kV	0.91	3-0
36.1 kV to 46.0 kV	1.06	3-6
46.1 kV to 121.0 kV	1.21	4-0
121 kV to 140.0 kV	1.38	4-6

¹ For single-phase lines off three-phase systems, use the phase-to-phase voltage of that system.

² For single-phase systems, use the highest voltage available.